CLAIMS

What is claimed is:

1.   A method for a relay server to provide an electronic mail notification to a mobile device, wherein the mobile device is in communication with the relay server via a wireless communication network, the mobile device communicating with the relay server according to a predefined protocol, the method comprising the steps of:

receiving an electronic mail destined to the mobile device from a mail server;

saving the received electronic mail on the relay server;

if there is no undelivered electronic mail destined to the mobile device on the relay server, then sending a new message notification to the mobile device, marking the received electronic mail as undelivered, and setting the time of last new message notification to the current time;

if there is at least one undelivered electronic mail destined to the mobile device at the relay server, calculating a lapse time between the time of last new message notification sent to the mobile device and the current time; and

if the lapse time is greater than a predefined period, then sending a new message notification to the mobile device, marking the received electronic mail as undelivered, and setting the time of last new message notification to the current time.

2.   The method of claim 1, further comprising the steps of:

receiving an electronic mail retrieval request from the mobile device; and

transmitting undelivered electronic mails on the relay server to the mobile device.

3.   The method of claim 2, further comprising the steps of:

deleting electronic mails transmitted from the server to the mobile device; and

sending an update message to a mail server.

4.   The method of claim 1, further comprising the steps of:

receiving a catch-up request from the mobile device;

retrieving a specification from the catch-up request;

compiling a list of electronic mails according to the specification; and

transmitting the list of electronic mails to the mobile device.

5.   The method of claim 4, wherein the specification includes a sender name.

6.   The method of claim 4, wherein the specification includes a time period.

7.   The method of claim 1, wherein the electronic mail is encrypted at the mail server.

8.   The method of claim 1, wherein the electronic mail is decrypted at the mobile

device.

9.   A method for a relay server to provide a list of electronic mails to a mobile device

according to a request received from the mobile device, wherein the mobile device is in

communication with the relay server via a wireless communication network, the mobile

device communicating with the relay server according to a predefined protocol, the method comprising the steps of:

receiving a request for electronic mails from a user at the mobile device, the request including a specification, wherein electronic mails that accord to the specification are desired by the user;

compiling a list of electronic mails according to the specification; and

transmitting the list of electronic mails to the mobile device.

10. The method of claim 9, wherein the specification includes a sender name.

11. The method of claim 9, wherein the specification includes a time period.

12. The method of claim 9, wherein the specification is for all undelivered electronic mails.

13. A method for scheduling a meeting for a user using a mobile device, wherein the mobile device is in communication with a server via a wireless communication network, the method comprising the steps of:

receiving a meeting request message from the mobile device, the meeting request message containing a request for a meeting and being destined to at least one recipient;

forwarding the meeting request message to the at least one recipient;

receiving a meeting reply message from the at least one recipient;

if at least one recipient has accepted the meeting, then adding the meeting to a calendar file for the at least one recipient; and

forwarding the meeting reply message to the mobile device.